RECREATION & SPORT

THE ECONOMIC IMPACT OF FITNESS IN THE WORKPLACE

BC Recreation and Sport
Hon. James Chabot
Minister Responsible

BC
R31
D·L3W
1984
c.1

Canadian Cataloguing in Publication Data

Buckley, Clair.

The economic impact of fitness in the workplace

Cover title.

At head of title: Recreation & Sport.

Prepared as background material for the 1984 Inter-provincial Ministers' of Recreation and Sport Conference by Clair Buckley and Tony Casey. Cf. Acknowledgement.

ISBN 0-7726-0165-8

1. Physical fitness - Economic aspects. 2. Industrial recreation - Economic aspects. I. Casey, Tony. II. British Columbia. Recreation and Sport Branch. III. Title.

HD7395.R4B82 1984 658.3'8 C84-092254-X

ACKNOWLEDGEMENT

This paper was prepared as background material for the 1984 Inter-Provincial Ministers' of Recreation and Sport Conference. The Recreation and Sport Branch acknowledges the contribution of

Clair Buckley
Ministry of Health

and

Tony Casey
Ministry of Health

The views expressed represent those of the authors, and do not represent the policies of the government of British Columbia

ECONOMIC IMPACT OF PHYSICAL FITNESS

IN THE WORKPLACE

Ministry of Health
September 1984

A. Introduction.

B. Description of Model Employee Fitness Programs.

C. Evaluation Research Linking Physical fitness to Productivity and Absenteeism.

D. Characteristics Contributing to Program Success.

APPENDIX

A. References

A. INTRODUCTION

Good health is good business. Health promotion and physical fitness programs in the workplace are not a panacea but there is mounting evidence that such programs can improve both the health and productivity of individuals and organizations.

The workplace is one of the most promising and challenging sites for promoting health-enhancing behaviors. The workplace is where an individual spends nearly thirty per cent of his or her waking hours. Programs offered "on site" or in nearby community facilities encourage the involvement of persons who are on tight schedules owing to work, family and social responsibilities. In addition the workplace offers accessibility to large groups of people and a potential channel through which families can be reached. Health promotion programs extend far beyond the workplace to influence the health and well-being of the community.

Corporate interest in health promotion and physical fitness is exhibited by the steady growth of programs within the last five years. Leaders of the business community realize that investment in health promotion and disease prevention holds the prospect of improved employee productivity and improved employee job satisfaction.

Preliminary evidence from the evaluation of health promotion and physical fitness programs indicates that positive changes are occurring in health knowledge, attitudes and behaviors. Less definitive data is available on downward trends on disease morbidity and on economic indicators such as absenteeism, worker turnover, and lack of productivity. Many companies have embarked on health promotion and physical fitness programs viewing them as valuable for short-term payoffs to the employees, to the company and to employer-employee relations, and for long term financial investment in the health of employees.

The purpose of this paper is to summarize the activities of five successful employee fitness programs in Canada, to discuss program evaluations which assess the impact of fitness activities on a number of variables including absenteeism and productivity, and to discuss some guiding principles which characterize successful employee fitness programs.

B. DESCRIPTION OF MODEL EMPLOYEE FITNESS PROGRAMS

Following are descriptions of five Canadian employee fitness programs:

1. Canada Life Fitness and Lifestyle Program, Toronto, Ontario

. Description

The Canada Life Fitness and Lifestyle Program was launched in January, 1978, as part of a research project sponsored by the Federal government. This demonstration project was aimed at assessing the impact of an employee fitness program on such factors as company morale, absenteeism, productivity and health care costs. Since the termination of the project in June 1978, Canada Life Assurance Company has taken over the full operation of its fitness and lifestyle education program.

The major focus of the Canada Life Program is on group exercise classes. Currently, 32 fitness classes attracting over 500 employees (35% of the company) operate year round. In addition to the classes, specialty programs and courses are offered throughout the year. These programs vary each term in accordance with changing employees demands and fitness trends. Current special interest programs include prenatal fitness, women's self-defense, dance-fit, cardio-pulmanary resuscitation, smoking cessation and nutrition counselling/weight control classes for both men and women.

Employees not registered in group activity programs may take advantage of an individual counselling service provided by the two full-time co-ordinators. Over 300 visits annually are paid to the fitness office for private counselling ranging from weight loss concerns to home exercise guidelines.

With the exception of smoking cessation, CPR, self-defense and dance-fit classes, which are conducted by outside agencies, a nominal registration fee of $7 is charged for participation in all in-house sponsored programs, most of which run for 12 week periods. Even though all in-house programs are fully subsidized by the Company, the token fee is charged to discourage registration by employees not likely to attend. It is also felt that a "free" program often diminishes its quality in the eyes of the registrant. Money collected each term is utilized to purchase participation awards such as pins and t-shirts.

Adherence to the fitness program is kept high through a variety of mechanisms including a full scale promotional program, regular follow-ups with potential drop-outs and carefully planned marketing strategies.

. <u>Evaluation</u>

The research component of the Canada Life Fitness and Lifestyle Project indicated that the high adherence group of exercisers at Canada Life had a 22% decline in absenteeism beyond the seasonal trends at Canada Life and control group employees at the North American Life Assurance Company. This figure represented approximately 6,000 less days absent annually, or $300,000 in direct savings for a company of 1400 employees.

There was significantly less turnover in the program participant group as compared to other employees within the company and the control group. Based on the estimated cost of hiring and training new personnel, this represented an annual savings of $510,000 if applied to the company as a whole. The estimated impact of reduced health care utilization was $85 per year per employee.

2. ManuLife Fitness Program, Toronto, Ontario

. Description

In 1974 ManuLife became one of the first major Canadian companies to conduct organized fitness assessments and in-house promotional programs, through a cooperative effort with ParticipACTION. Nearly ten years later a facility has been built and a wide variety of programs are now available to employees.

Individual programs are available - stationary cycles, weight machines, mats for stretching and strengthening exercises, a cross country ski simulator track and a jogging/walking track. Group activity programs are offered for employees of all fitness levels and interest levels.

At the present time approximately 800 employees from an available population of 1200 employees are participants in the Manulife Fitness Program. Two hundred to four hundred participants use the Centre on a daily basis. Group classes are scheduled three times per week and before work, during lunch hours and immediately after work. Eleven classes are conducted each day, varying in intensity from basic to intense plus.

Exercise prescription and counselling is also available - one-on-one sessions on specific individualized programs. Programming is based on the results of an initial fitness assessment which is a pre-requisite to becoming a Fitness Centre member. From this data participants are guided to appropriate levels of group classes and to individual activities.

. Evaluation

The ManuLife Fitness Centre is presently involved in a research study with the University of Toronto and Fitness Ontario. The study is investigating the factors contributing to the compliance of individuals with the activities of the Program.

Absenteeism and employee turnover are two areas which will be addressed in a long term evaluation project. Since the October 1983 opening of the Fitness Centre the greatest measured impact of the program has been on employee morale.

3. B. C. Tel Employee Fitness Centre. Burnaby B. C.

. Description

B. C. Telephone has installed four on-site fitness facilities in British Columbia and has plans for further expansion in the near future. The flagship facility is the 6000 sq. ft. Headquarters Fitness Centre which has a regular membership of 1100 users and a daily visitation rate of over 500. This fully equipped facility offers a complete program of aerobics, exercise prescription and counselling, comprehensive evaluations, nutrition and lifestyle management. This is complemented by an athletic program of soccer, softball and running, and social-recreational activities.

Participation at the Headquarters facility involves 1100 employees, out of a total employee population of 2300. A nominal $5 monthly fee is levied on members to account for some of the centre's operating costs. These costs are low as the Program has opted for a heavy reliance on highly trained company volunteers. The smaller satellite facilities, located in surrounding communities, have participation rates in the neighbourhood of 23-30% of the building populations.

. Evaluation

One of the primary objectives in 1984/85 for the B. C. Tel Employee Fitness Program is to undertake a cost-benefit analysis. For several years longitudinal data has been collected.

A Fitness Program questionnaire was administered to 200 random fitness centre participants in 1982. The results indicated that:

1. 84% of the participants reported signficantly better health as a result of the Employee Fitness Program.
2. 79% reported lowered stress.
3. 74% reported a better self-image.
4. 63% reported a better work attitude.
5. 54% reported a weight loss.

Increased productivity, establishment of new friendships and reduced absenteeism were reported benefits.

4. Esso Plaza Physical Fitness Centre, Calgary, Alberta

. Description

The activities of the Esso Plaza Fitness Centre were inaugurated in 1981. A staff of six full time employees provide a variety of programs including group exercise classes, fitness assessments, individual activity counselling and special promotions.

The Esso Plaza Fitness facility is 12,500 square feet in area and includes locker rooms, individual exercise area, group exercise area, and a lab for conducting assessments. A key feature is a special walking/jogging track which encircles the group exercise area. The individual exercise area offers a variety of fitness equipment including eight stationary exercise bicycles, a machine that simulates the actions of cross-country skiing, two seven-station gym units and other weight training equipment.

Following the completion of the Par-Q each participant receives a fitness assessment. After the assessment a private session is held with a member of the professional staff to determine an appropriate individualized fitness program and set realistic goals. The objective of the Esso Plaza Fitness Centre is to involve 30 to 40 per cent of the total employee population.

. Evaluation

Within the past two years, the staff of the Esso Plaza Fitness Centre has conducted over 2500 fitness assessments which has provided sound data on physical fitness measures and other lifestyle data related to nutritional habits, alcohol, caffeine and tobacco use and frequency of physical activity.

A 1982 assessment of physiological and lifestyle changes reported that:

1. a significant decrease in body fat was found in most participants.
2. aerobic capacity showed a considerable improvement
3. low back flexibility increased significantly in male participants.
4. use of salt dropped favourably in all groups.

With the availability of computerized attendance records Esso Plaza is now planning evaluation activities which involve cross tabulations with absenteeism data in order to demonstrate a financial return on investment.

5. Husky/NOVA Fitness Centre, Calgary, Alberta

. Description

The Husky/NOVA Fitness Centre, the Calgary based facility for employees of NOVA, Husky Oil, their subsidiaries and affiliate companies, is an integral part of NOVA's corporate health promotion program. The Fitness Centre includes three squash courts, one racquetball court, exercise bicycles, weight-training facilities, a running track and three group exercise areas. Locker rooms are fully equipped with showers,lockers, change areas and steam rooms.

The programs offered at Husky/NOVA all promote cardio-respiratory activity as well as improvement of general muscle tone and flexibility. Group exercise is emphasized and aerobic classes are held before work, during noon hours and after work. Volunteers have been trained to lead a variety of group exercise classes under the guidance of Fitness Centre staff. In addition employees can develop individual exercise programs consisting of weight training, running, cycling and racquet sports, in consultation with staff.

. Evaluation

The Husky/NOVA Fitness Program is presently collaborating with the University of Calgary to: (1) profile the employees who have participated in the health promotoion and physical fitness programs in 1982 and 1983; (2) assess changes in exercise activities and other health-related behaviors after the cessation of a formal employee fitness program; and (3) examine the factors that influence whether or not an individual joins (or rejoins) an employee fitness program

C. EVALUATION RESEARCH LINKING PHYSICAL FITNESS PROGRAMS TO PRODUCTIVITY AND ABSENTEEISM

Health promotion and physical fitness programs in the workplace should be linked to a "cost-containment" strategy and managed like any business endeavor. Considerable anxiety has been felt about employee fitness programs because of difficulty in justifying the investment for a program and its facilities to upper management. Following is a brief discussion of evaluation research which has linked health promotion and employee fitness programs to economic variables.

1. Productivity

Productivity is often outside the control of the individual worker as it may be restricted by poor management, breakdown of equipment, absenteeism of colleagues, and a variety of other factors. However, improved physical fitness can improve the output of employees who operate at a high fraction of aerobic power or muscular strength (Shephard, 1977). In many occupations it is difficult to obtain clear, objective measurements of work output and therefore there have been few studies that suggest the personal fitness enhances productivity (Haskell & Blair, 1980).

However, Carter & Wanzel (1975) have maintained that longitudinal studies in Canada and the U.S. demonstrate favorable effects of employee recreation programs upon fitness, productivity, turnover, absenteeism and attitudes. The Canada Life Study of 1981 (Shephard, Cox and Corey, 1981) indicated that supervisory ratings for such items as promptness of arrival, productivity, accuracy of work, cooperation and job satisfaction all improved from the "pre-intervention to the experimental year" but changes were similar at control and experimental companies. The year following introduction of the employee fitness program workers at the experimental companies showed a 7 % rise in the index of productivity.

2. Absenteeism

Reports from the U.S. suggest that unpaid absenteeism at the People's Credit Jewellers dropped 23% following institution of an employee fitness program (Erwin, 1978). Keelor (1976) indicated that absenteeism at the Goodyear Tire plant in Norkjoping, Sweden was 50% less following introduction of an employee fitness program, while a 68.6% decrease of absenteeism was noted after German workers had spent a month at a recreation resort.

The New York Telephone Company estimated annual savings of more than $3 million from reduced absenteeism and health-care treatment costs following introduction of its wellness and physical fitness program. In the Dallas police force a six month fitness program reduced the sick leave of experimental subjects by 29% while that of controls increased by 5% . Bjurstrom and Alexiou (1978) found that 50% of New York State Board of Education workers who joined an employee fitness program decreased their absenteeism, the average effect amounting to 0.59 days per employee-year.

The Canada Life Study (Cox, 1981) showed significant changes in both uncertified and medically certified absences. Within the analysis, further evidence for a causal component to the relationship between fitness and absenteeism was obtained when observations were repeated after 18 months operation of the fitness program . The Canada Life estimate of 1.3 days per year decrease of absenteeism in "high adherents" to the fitness program may well be a conservate measure of benefit in view of the low initial absenteeism rates at the two companies studied (Shephard, Cox & Corey, 1981).

D. CHARACTERISTICS CONTRIBUTING TO PROGRAM SUCCESS

Successful employee fitness and health promotion programs of all types have guiding principles or operational strategies which are common. Following is a discussion of seven guidelines which have formed the foundation of many effective employee fitness programs. The input of Susan Pridham of Canada Life, Janet Conners of ManuLife, Patrick Lee of B. C. Tel, Paul Youldon of Esso, Janis Fearey of Husky/NOVA and Kendy Bentley of Can-Health Systems was greatly appreciated.

1. Company Commitment

The consensus within the domain of health promotion and physical fitness in the workplace is that top management support is crucial. Effective programs require commitment from employers to a slow, deliberate developmental and implementation process. Such a process requires both time and financial commitment by top management.

A recent survey of employee fitness programs revealed that 49% of programs are financed by employers, 24% by employees and 22% by a cooperative effort of employers and employees (Pelletier, 1984). A further study revealed that the department or groups most likely to be the initiators and supporters of employee fitness programs are personnel (35.1%), top management (20.5%), safety groups (18.2%), medical department (14.3%), health benefits groups (7.4%), employees (1.3%), unions (0.2%) and other groups (2.9%) (Fielding and Breslow, 1982). In short, without the employer contribution of time, resources and support, most present day health promotion and physical fitness programs would not exist.

Ongoing organizational support for employee fitness programs is an essential ingredient in ensuring program viability (Cowan, 1981). Without it, even the best conceived programs are liable to falter once the initial spark of enthusiasm has subsided. Placement of the program high within the organizational structure of the company and management's perception of the organizational integrity of the program is vital.

2. Ability to Understand and Sell the Benefits

There are at least as many motivations for companies to initiate employee fitness programs as there are programs. Some employers enact programs out of a sense of social responsibility or union pressure. Other programs are initiated by a key executive who has recovered from a health attack or had a colleague who did not. Some are started to keep the corporate image consistent with the product, others are a competitive perk in seeking key personnel. Some companies initiate programs to get a tax break or to provide a benefit for many of the top executives. The least frequently cited reason is the cost of medical disabilities or even a concern over the umbiguous bottom line.

In recent years, employers and employees have realized that when an organization acts to create positive working conditions, those same conditions will make the organization healthier, more productive and ultimately more profitable.

Attitude changes and morale improvement are key issues. If improved profits are the only goal of employee fitness programs, the programs are doomed to failure. And if employee fitness aims only at improving productivity it quickly loses worker support. Further, a program that has only a vague plan of making employees "feel better" about themselves is likely to collapse for the lack of management support . Improved job satisfaction and improved productivity must be viewed as the dual benefits.

The "patrons" or supporters of the employee fitness program within the organizational hierarchy must clearly understand the benefits and should be encouraged to continually communicate their expectations to the program manager.

3. Accessible Facilities

A fitness program adherence study indicated that facility inaccessibility (facility is not located in the building where the employee works) is one of the major factors contributing to program drop-outs. This is because employees must spend time travelling to and from the facility, something many will be unwilling to do especially in inclement weather. Another key factor is relating to facilities is daily routine disruption. The disruption may cause a variety of problems for the employee's home life which, when compounded, may lead to employees quiting the program.

An accessible in-house fitness facility is ideal. Studies have indicated that over 60% of Canadian employees would like to have company - provided facilities and programs on site. However, elaborate facilities are not necessary as facilities may come in many shapes and sizes. Included in a "facility continuum" are (1) showers and changing rooms, (2) individual activity room, (3) group exercise facility, and (4) a full fitness facility.

Few firms have large facilities or staffs and many utilize or share existing facilities such as health clubs and YMCA's. Effective programs have been established where companies enroll employees in independent activities rather than build their own facilities. The spectre of large expenditures for elaborate facilities and staff is a frequent deterrent to many organizations.

A feature of IBM's "A Plan for Life" Program is that IBM deliberately avoided building elaborate and expensive facilities for physical fitness, instead the program makes use of existing facilities of the local YMCA. This is in keeping with a recommendation of the Washington Business Group on Health that "even the largest firms should go to great lengths to avoid duplicating or competing with existing facilities and programs". Other examples of successful programs without on-site facilities are Shell Resources and Texaco of Calgary, B. C. Hydro of Vancouver, and Control Data of Minneapolis, Minnesota. As well as relying on out-of-building facilities, programs of this nature may also place greater emphasis on educational activities without a practical, physical activity component. Educational resources such as ParticipACTION's "Fitness - The Facts" have been used by many companies across Canada.

Subsidizing employees' membership dues in an "outside" fitness centre or club may be effective/attractive for a relatively small group of employees. Programs designed to attract a large cross section, including high risk employees, are most effective when using convenient, on-site facilities.

4. <u>Personalized Physical Fitness Profiles/Assessment - "Sensitivity to Individual Differences"</u>

For most organizations a first step in the implementation of an employee fitness program is an overall fitness assessment of potential participants.As physical fitness is a personal matter, it is widely acknowledged that a personalized assessment is a critically important component in a comprehensive fitness program.

A Steering Committee established by former California Governor Jerry Brown's Wellness in the Workplace Project formulated specific criterial for the use of fitness assessment and health hazard appraisals (cited by Pelletier, 1984):

1. an assessment is an educational tool to be used only in conjunction with health promotion and employee fitness interventions, never independently.
2. Assessments should be used in periodic follow-up/evaluation to measure and reinforce change.
3. Assessments must respect confidentiality and the rights of the individual to privacy.

Although the assessment is a requisite step for most employee fitness programs, it cannot be used as the only intervention since information alone has been proven to be ineffective in actually achieving significant results. The imparting of knowledge is an important, but insufficient step, in the process of encouraging employees to make long-lasting changes in health practices..

An ingredient of success for most employee fitness programs is attention to individual participants. Conducting the initial fitness assessment with the subsequent counselling session helps establish a supportive bond between participants and program staff.

5. Financial Accountability and Professional Management

Health promotion and physical fitness programs must meet the rigors of private enterprise economics. Ideally they should be self-sustaining and even profitable if they are to survive, particularly in times of fiscal restraint. Employee fitness programs should meet the same criteria for support and continuation that all business activities must meet.

From the business community, employee fitness programs must learn about goal setting, zero based budgeting, performance assessments and developing structured efforts towards a specific goals. This, when combined with the health promotion perspective regarding attitudes, morale and job satisfaction provides for a effective program with a sound administrative base.

As indicated the perception of the employee fitness program's worth within the organizational structure of the company is vital. Furthermore it is also important that the employee fitness program be perceived as an activity which has solid, professional management. The coordinator of employee fitness should ensure that technically supervised staff provide consistently sound leadership, that careful attention be given to the on-going motivation of employees, that the program is supportive to existing programs within the company, and that on-going program evaluation be conducted to determine success and to ensure accountability.

6. Rigorous Evaluation

If employee fitness programs are to move beyond individual efforts and emerge as a priority in the private and public sectors a number of factors need to be taken into account. Pyle (1979) has suggested a procedure for evaluating employee fitness and health promotion programs which is conducted in three stages: (1) short-term measures of primary value to the employees (three to four months) including physiological measures such as blood pressure, coronary risk factors such as smoking cessations and health hazard appraisals or lifestyle questionnaires; (2) intermediate measures (one year) of primary value to various company departments including absenteeism and attitudes and morale of employees; and (3) longer term (minimum three to five years) changes of value to corporate management such as impacts upon medical costs, insurance factors, productivity indicators, and overall organizational effectiveness.

From a business perspective, one of the primary purposes of evaluation is to ensure that monies being allocated are used in the most efficient and effective manner. From the perspective of accountability, the main purpose is to determine whether the program objectives are being met. Evaluation also adds to the body of scientific and practical knowledge that can be diffused to employees and employers so that informed decisions about life-style changes and health issues can be made successful. Employee fitness programs must have sound evaluation measures in place.

7. Adaptability to Changing Needs

Employee fitness programs should be dynamic entities, constantly monitoring and responding to changing needs and desires of participants and funding sources. From a motivational perspective the interests of the program participants must be analyzed periodically to ensure that the services, activities and programs are desirable and likely to lead to long-term behavior change. From a management perspective an employee fitness program must also be responsive to possible changes in the attitudes of the company managers who financially support the program. Reinforcing the rationale for the program or providing additional cost-benefit data from the program may be required to accommodate changing attitudes of top management. Static programs with static staff are not likely to succeed over the long term.

APPENDIX

A. References

Bjurstrom, L. A., & Alexiou, N. G. A program of heart disease prevention for public employees. J. Occup.Med. 20, 54-531 (1978).

Carter, R. & Wanzel, R. Measuring recreation's effect on productivity. Recreation Management. 18(6).42-47, 1975.

Collis, M. L. Employee Fitness Health and Welfare Canada, Ottawa, 1976.

Cowan, D. Organizational support for employee fitness programs. In: Employee Fitness: The How To. Ontario Ministry of Culture & Recreation, 1979.

Cox, M., Shephard, R. J., & Corey, P. Influence of an employee fitness program upon fitness, productivity, and absenteeism. Ergonomics. 24. 795-806 (1981).

Erwin, J. People's Jewelery Compazny: Where a new personnel director introduced recreation and employee services and watched absenteeism fall dramatically. Recreation Management 21. 18-19, 1978.

Fielding, J., & Breslow, L. Health Promotion Programs Sponsored by California Employees. U.C.L.A. School of Medicine, 1982.

Haskell, W. L. & Blair, S. N. The physical activity component of health promotion programs in occupational settings. Public Health Reports, 95, 109-118, 1980.

Keelor, R. Testimony to the U.S. Council on Wage and Price Stability Hearings on Health Care Costs, July, 1976. As cited in Collis, 1976.

Pelletier, K. R. Healthy People in Unhealthy Places. Stress and Fitness at Work. New York, Delacorte Press/Seymour Lawrence, 1984.

Pyle, R. L. Fitness development programs: Strengthening the corporate body. Management World, 8(7), 8-11 1979.

Shephard, R. J. Endurance Fitness (2nd Ed). Toronto: University of Toronto Press, 1977.

Shephard R. J., Cox, M. & Corey, P. Fitness program participation: Its effects on worker performance. J. Occup. Medicine, 23, 359-363, 1981.

POOR

QUALITY

ORIGINAL